



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0519; Directorate Identifier 2010-SW-068-AD]

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland GmbH (ECD) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for ECD Model BO105C (C-2 and CB-2 Variants) and BO105S (CS-2 and CBS-2 Variants) helicopters with a certain third stage turbine wheel installed. This proposed AD would require installing a placard on the instrument panel and revising the limitations section of the rotorcraft flight manual (RFM). This proposed AD is prompted by several incidents of third stage engine turbine wheel failures, which were caused by excessive vibrations at certain engine speeds during steady-state operations. The proposed actions are intended to alert pilots to avoid certain engine speeds during steady-state operations, prevent failure of the third stage engine turbine, engine power loss, and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Chinh Vuong, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email chinh.vuong@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

The European Aviation Safety Agency (EASA), which is the aviation authority for Germany, has issued EASA AD No. 2010-0128, dated June 25, 2010 (EASA 2010-0128), to correct an unsafe condition for Model BO 105 C, BO 105 D, and BO 105 S

helicopters, and certain variants of those models. EASA advises that several failures of third stage turbine wheels used in Rolls Royce Corporation (RRC) 250 series engines have occurred. According to EASA, RRC has determined that detrimental vibrations can occur within a particular range of turbine speeds, and may be a contributing factor to these failures. This condition, if not corrected, could result in loss of engine power, possibly resulting in an emergency landing and injuries to the helicopter occupants. To address this, RRC issued Commercial Engine Bulletin (CEB) A-1400, now at revision 3, for engines with a third stage turbine wheel, part number (P/N) 23065833, installed. CEB A-1400 introduces an operational limitation to avoid engine power turbine (N2) steady-state operation in a speed range between 86.5% and 95.5% for more than 60 seconds in single or cumulative events. In response, ECD has revised the RFM and has provided a placard to inform pilots to avoid steady-state operations between 86.5% and 95.5% turbine speeds.

The EASA AD requires amending the RFMs and installing a placard as described in ECD Alert Service Bulletin No. BO105-60-110, Revision 1, dated March 3, 2010 (ASB BO105).

FAA's Determination

These helicopters have been approved by the aviation authority of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other helicopters of the same type design.

Related Service Information

ECD has issued ASB BO105, which contains procedures for installing a placard on the instrument panel stating the prohibited steady-state turbine operating range. Revision 1 of ASB BO105 removed the temporary RFM pages as these changes were included in the most recent revisions of the BO105C/CS and BO105CB/CBS RFMs.

Proposed AD Requirements

This proposed AD would require installing a placard on the instrument panel next to the triple RPM indicator and revising the Operating Limitations sections of the Model BO 105C/CS and BO105 CB/CBS RFMs to limit steady-state operations between speeds of 86.5% and 95.5%.

Costs of Compliance

We estimate that this proposed AD would affect 80 helicopters of U.S. Registry. Based on an average labor rate of \$85 per hour, we estimate that operators may incur the following costs in order to comply with this AD. Amending the RFM would require about 0.5 work-hours, for a cost per helicopter of about \$43 and a cost to U.S. operators of \$3,440. Installing the decal would require about 0.2 work-hours, and required parts would cost about \$5, for a cost per helicopter of \$22 and a cost to U.S. operators of \$1,760. Based on these estimates, the total cost of this proposed AD would be \$65 per helicopter and \$5,200 for the U.S. operator fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

EUROCOPTER DEUTSCHLAND GMBH (ECD): Docket No. FAA-2013-0519;
Directorate Identifier 2010-SW-068-AD.

(a) Applicability.

This AD applies to ECD Model BO105C (C-2 and CB-2 Variants) and BO105S (CS-2 and CBS-2 Variants) helicopters with a third stage turbine wheel, part number (P/N) 23065833, installed, certificated in any category.

(b) Unsafe Condition.

This AD defines the unsafe condition as a third stage turbine vibration, which could result in turbine failure, engine power loss and subsequent loss of control of the helicopter.

(c) Comments Due Date.

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions.

Within 30 days:

(1) For BO105C-2 and BO105CS-2 Variant helicopters, revise the Rotorcraft Flight Manual (RFM), Section 2, Limitations Section, by inserting page 2-25 of ECD Flight Manual BO 105 C/CS, revision 5.

(2) For BO105CB-2 and BO105CBS-2 Variant helicopters, revise the RFM, Section 2, Limitations Section, by inserting pages 2-8 and 2-27 of ECD Flight Manual BO 105 CB/CBS, revision 8.

(3) Install a placard on the instrument panel next to the triple RPM indicator that states:

MIN. CONTINUOUS 98% N₂

MIN. TRANSIENT 95% N₂

(f) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Chinh Vuong, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email chinh.vuong@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information.

(1) ECD Alert Service Bulletin No. BO105-60-110, revision 1, dated March 3, 2010, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency AD No. 2010-0128, dated June 25, 2010.

(h) Subject.

Joint Aircraft Service Component (JASC) Code: 7250: Turbine Section.

Issued in Fort Worth, Texas, on June 13, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2013-14697 Filed 06/19/2013 at 8:45 am; Publication Date: 06/20/2013]